

CHAPTER 1 GENERAL

1-1. Purpose.

This manual provides general information, guidance, and criteria for the design of domestic wastewater treatment facilities at permanent Army and Air Force installations.

1-2. Scope.

Criteria presented in this manual are applicable to new and upgraded domestic wastewater treatment facilities located both in the United States and overseas. This manual provides the information necessary to determine the sizes of wastewater treatment unit operations.

1-3. References.

Appendix A contains a list of references used in this document.

1-4. Objectives.

A wastewater treatment plant should be designed to achieve Federal, State and local effluent quality standards stipulated in applicable discharge permits. Specifically, the plant must be easy to operate and maintain, require few operating personnel, and need a minimum of energy to provide treatment. Plants should be capable of treating normal laundry wastes together with sanitary wastewater. Pretreatment of laundry wastes will not be considered except where such wastes might exceed 25 percent of the average daily wastewater flow, or as a resources conservation measure when feasible. In a design for the expansion of existing plants, criteria contained herein regarding flows and wastewater characteristics may be modified to conform to existing plant performance data if the plant has been in operation long enough to have established accurate data.

1-5. Special design considerations.

In a design for the expansion of existing treatment works or construction of new facilities, the designer may offer criteria on new treatment processes for consideration. Pollution control facilities will incorporate the latest proven technology in the field. Technology is considered proven when demonstrated successfully by a prototype plant treating similar wastewater under expected climatic conditions. Treatment level obtained, and operational performance and maintenance records will have been adequately documented to verify the capability of the process. Request for use of such processes, with supporting documentation and service performance record, will be forwarded to HQDA (DAEN-ECE-G) WASH DC 20314-1000 for Army projects and to HQ USAF/LEEE WASH DC 20332 for Air Force projects.